

FIG. 1

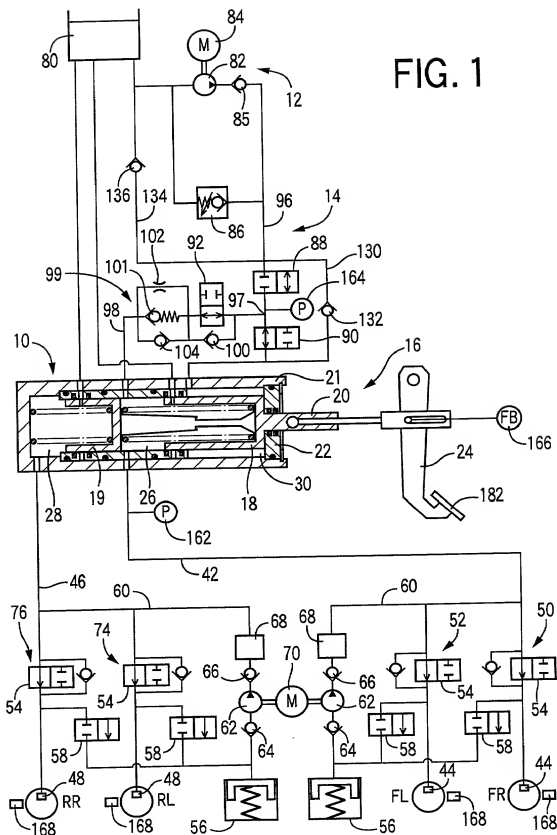


FIG. 2A

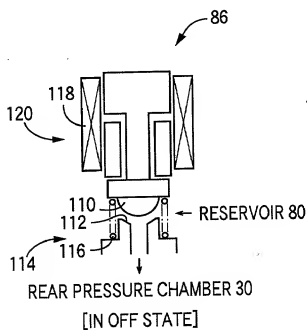
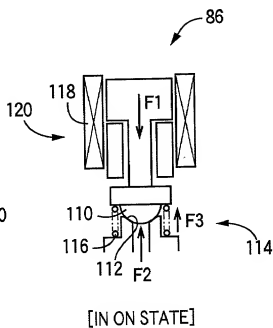


FIG. 2B



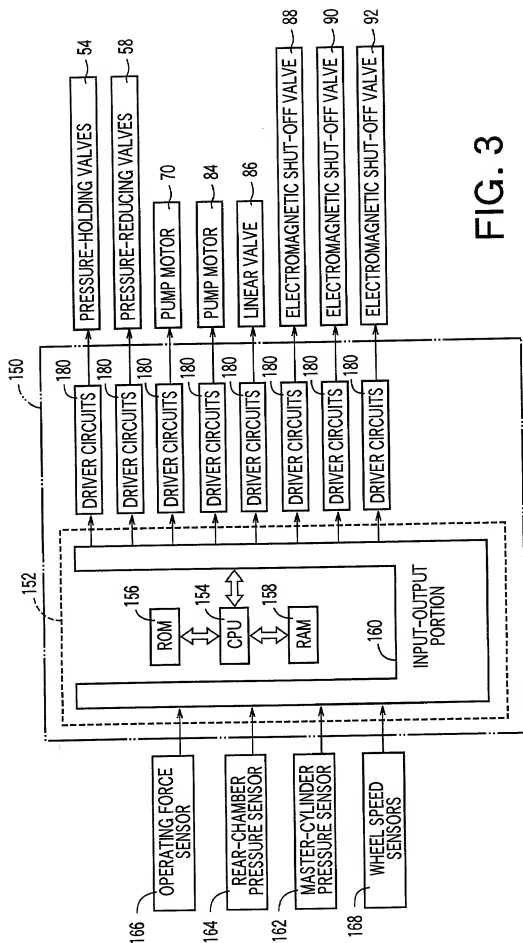


FIG. 3

FIG. 4

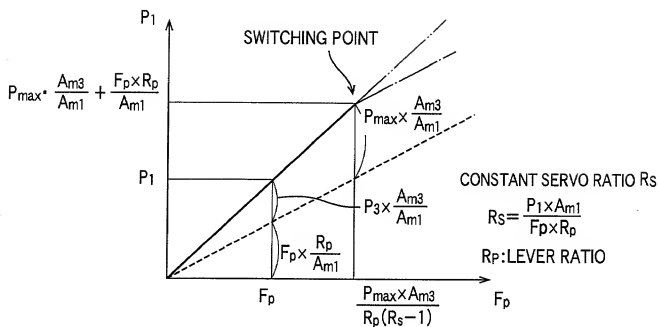
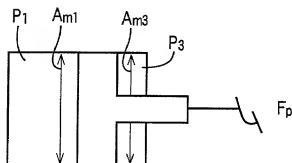


FIG. 5



$$P_1 \times A_{m1} = P_3 \times A_{m3} + F_p \times R_p \quad \dots (1)$$

FIG. 6

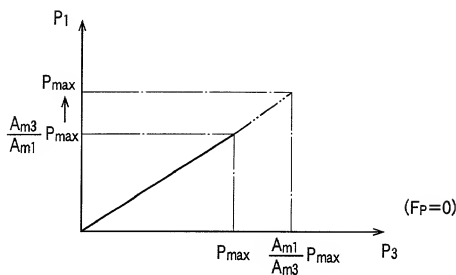


FIG. 7

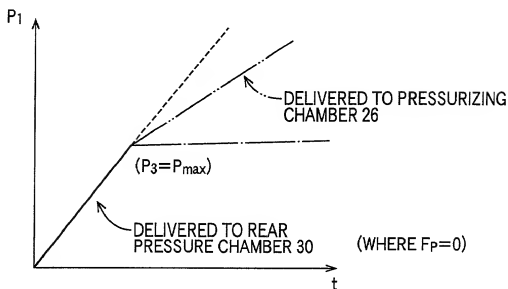


FIG. 8

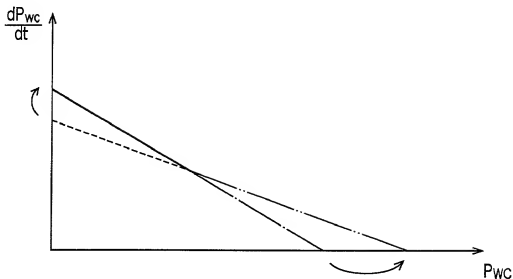


FIG. 9

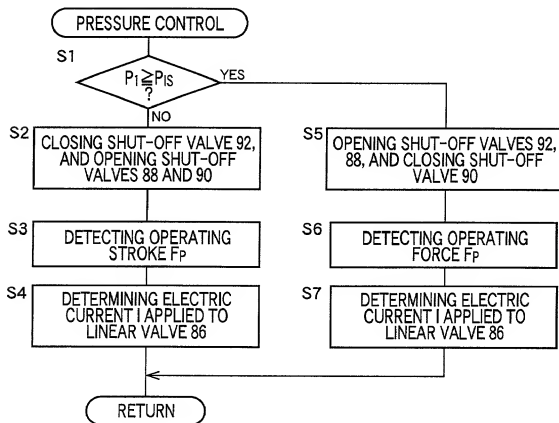
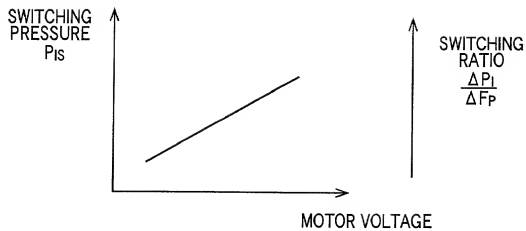


FIG. 10

	FIRST STATE	SECOND STATE
SHUT-OFF VALVE 88	OPEN	OPEN
SHUT-OFF VALVE 90	OPEN	CLOSED
SHUT-OFF VALVE 92	CLOSED	OPEN
RATE OF FLOW q_{WC} INTO BRAKE CYLINDER	$(A_{m1}/A_{m3}) q$	q
BRAKING PRESSURE P_{WC}	$(A_{m3}/A_{m1}) P$ ($FP = 0$)	P

0903652-071301

FIG. 11



09903652.071301

FIG. 12

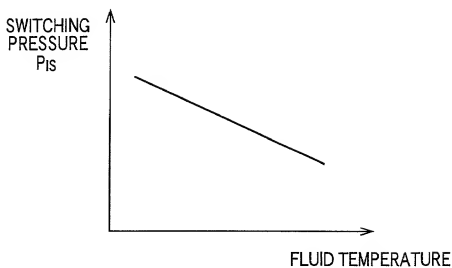
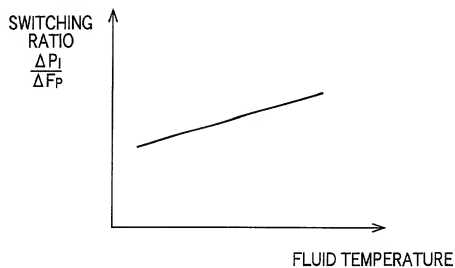


FIG. 13



09036F-07303

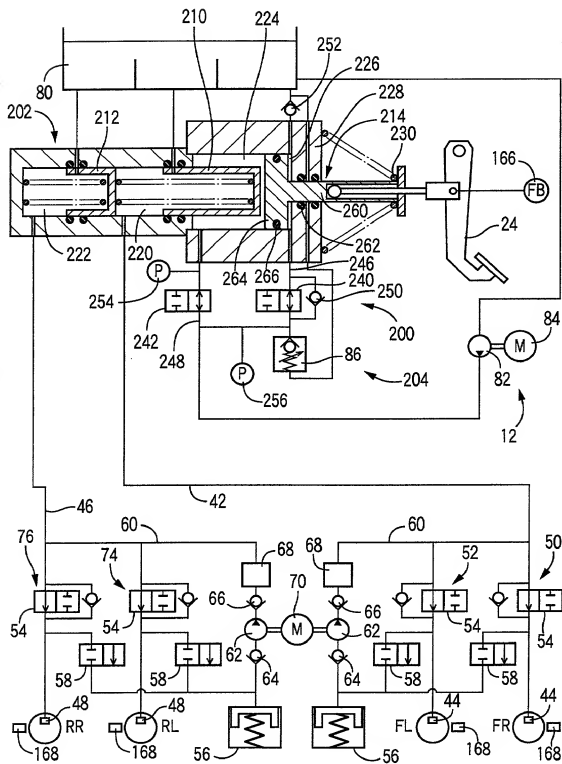
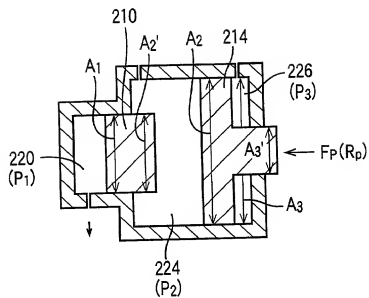


FIG. 15



09903652.071301

FIG. 16

	FIRST STATE	SECOND STATE
SHUT-OFF VALVE 240	OPEN	CLOSED
SHUT-OFF VALVE 242	CLOSED	OPEN
RATE OF FLOW q_{wc} INTO BRAKE CYLINDER	$(A_2/A_3) \cdot q \cdot (A_2 A_1/A_3 A_2') \cdot q$	$q \cdot (A_1/A_2') \cdot q$
BRAKING PRESSURE P_{wc}	$(A_3/A_2) \cdot P \cdot (A_3 A_2'/A_2 A_1) \cdot q$ (FP = 0)	$P \cdot (A_2'/A_1) \cdot P$

09903652-071301

FIG. 17

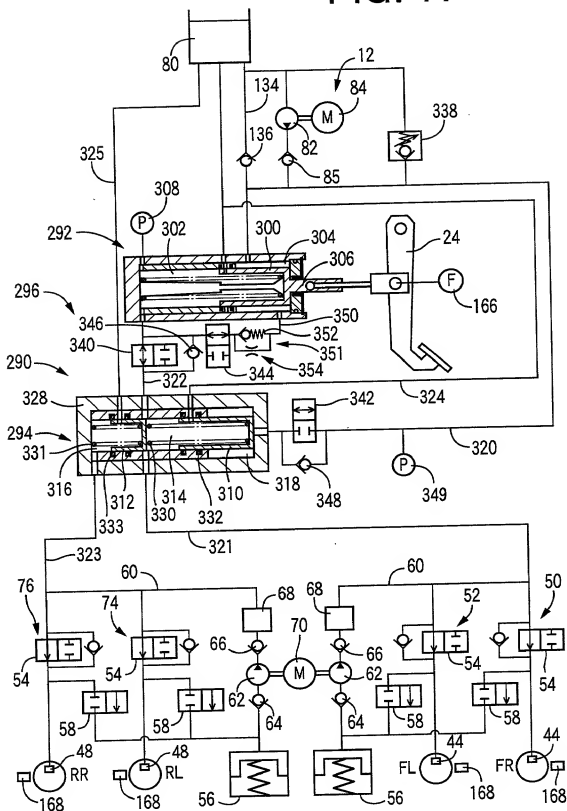
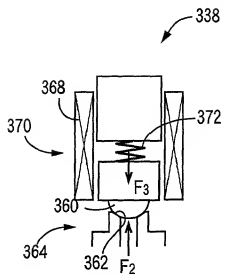


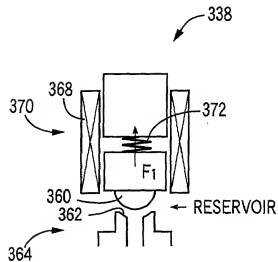
FIG. 18A



REAR PRESSURE CHAMBER 304
PRESSURIZING CHAMBER 318

[OFF]

FIG. 18B



REAR PRESSURE CHAMBER 304
PRESSURIZING CHAMBER 318

[ON]

FIG. 19

	FIRST STATE	SECOND STATE
SHUT-OFF VALVE 340	OPEN	CLOSED
SHUT-OFF VALVE 342	CLOSED	OPEN
SHUT-OFF VALVE 344	CLOSED	CLOSED
RATE OF FLOW INTO BRAKE CYLINDER	$(A_{m1}/A_{m3}) \cdot q$	q
BRAKING PRESSURE	$(A_{m3}/A_{m1}) \cdot P$ (FP = 0)	P

09903652 071301

FIG. 20

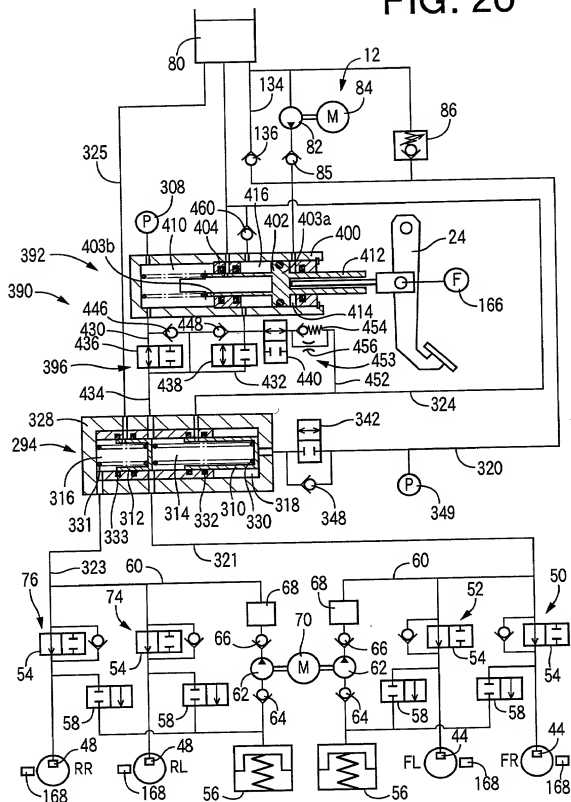
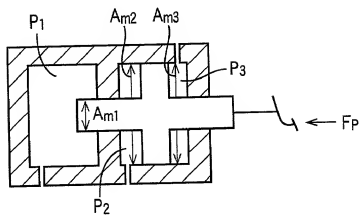


FIG. 21



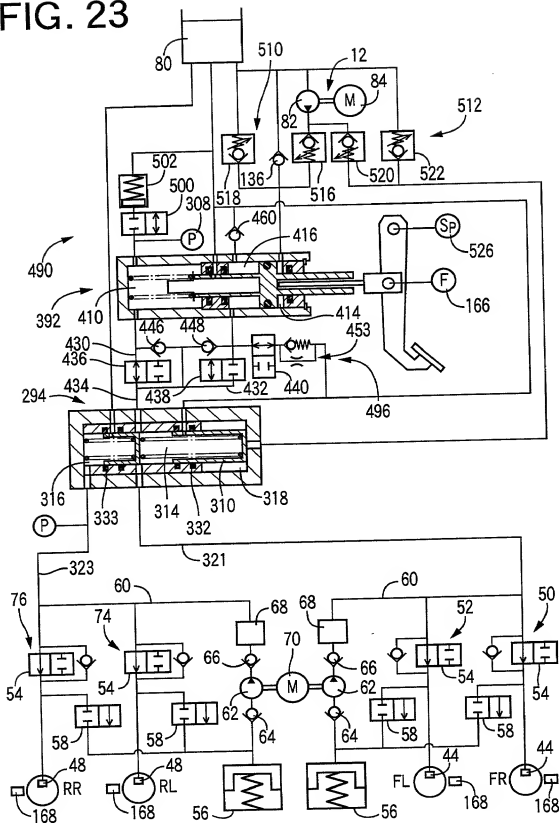
09903652.071301

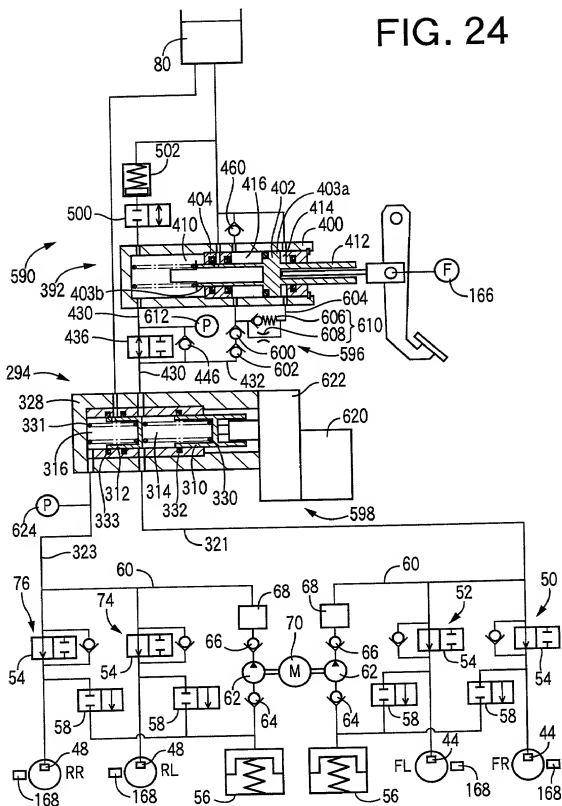
FIG. 22

	1 st STATE	2 ND STATE	3 RD STATE
SHUT-OFF VALVE 436	OPEN	CLOSED	OPEN
SHUT-OFF VALVE 438	OPEN	CLOSED	CLOSED
SHUT-OFF VALVE 440	CLOSED	CLOSED	CLOSED
SHUT-OFF VALVE 342	CLOSED	OPEN	CLOSED
RATE OF FLOW INTO BRAKE CYLINDER	$\{(A_{m1} + A_{m2})/A_{m3}\} \cdot q$	q	$(A_{m1}/A_{m3}) \cdot q$
BRAKING PRESSURE	$(A_{m3} \cdot P)/(A_{m1} + A_{m2})$ (FP = 0)	p	$(A_{m3}/A_{m2} \cdot P)$ (FP = 0)

09903652.071301

09503552 071307





090616Z 071303



090616Z 071303



FIG. 27

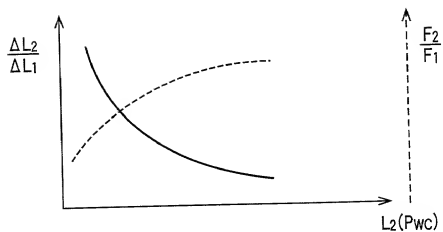


FIG. 28

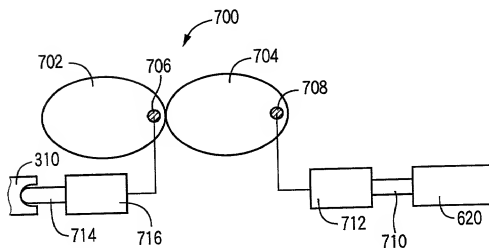


FIG. 29A

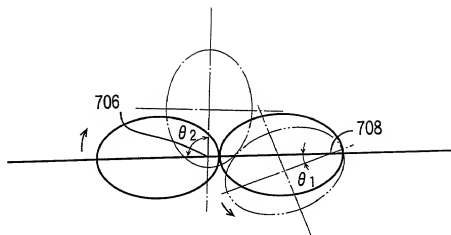
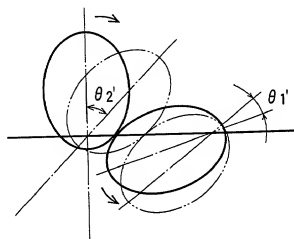
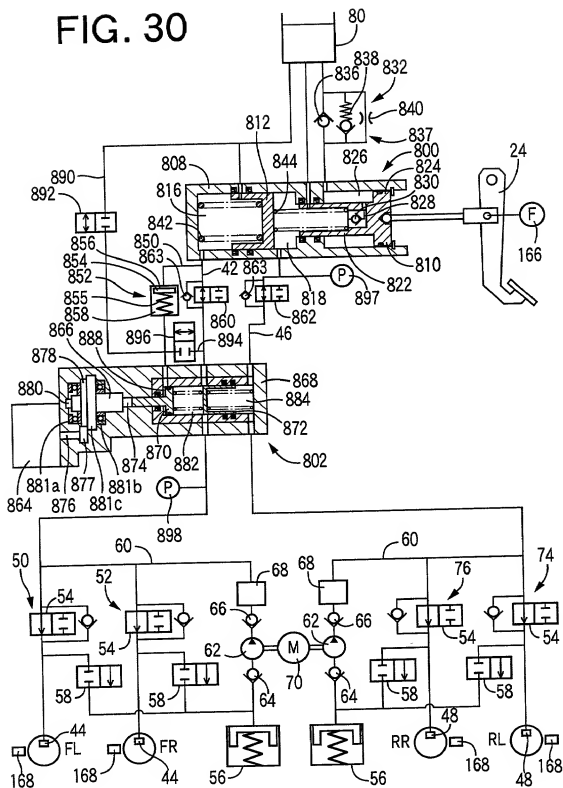


FIG. 29B



$$\frac{\theta_2'}{\theta_1'} < \frac{\theta_2}{\theta_1}$$

FIG. 30



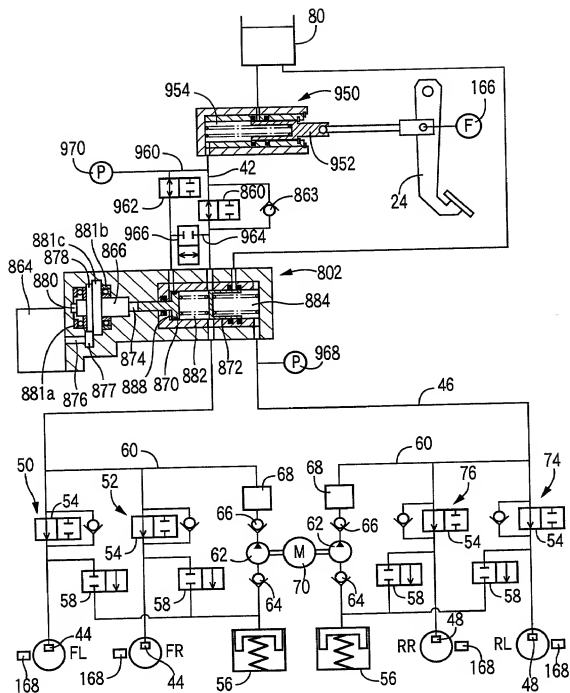
09903652.071301

FIG. 31

	FIRST STATE	SECOND STATE
SHUT-OFF VALVE 892	OPEN	CLOSED
SHUT-OFF VALVE 896	CLOSED	OPEN
RATE OF INCREASE OF BRAKING PRESSURE	$\Delta Fd/A_1$	$\Delta Fd/(A_1 \cdot A_3)$

09903652-071301

FIG. 32



09903652.071301

FIG. 33

	FIRST STATE	SECOND STATE
SHUT-OFF VALVE 962	OPEN	CLOSED
SHUT-OFF VALVE 966	CLOSED	OPEN
PRESSURE INCREASE RATE BOOSTING RATIO	$\Delta Fd \cdot \gamma / (A_1 \cdot \gamma - A_3)$	$\Delta Fd / (A_1 - A_3)$

09903652-071301